



# **Board Presentation**

## **Los Angeles Union Station Alternatives Analysis**

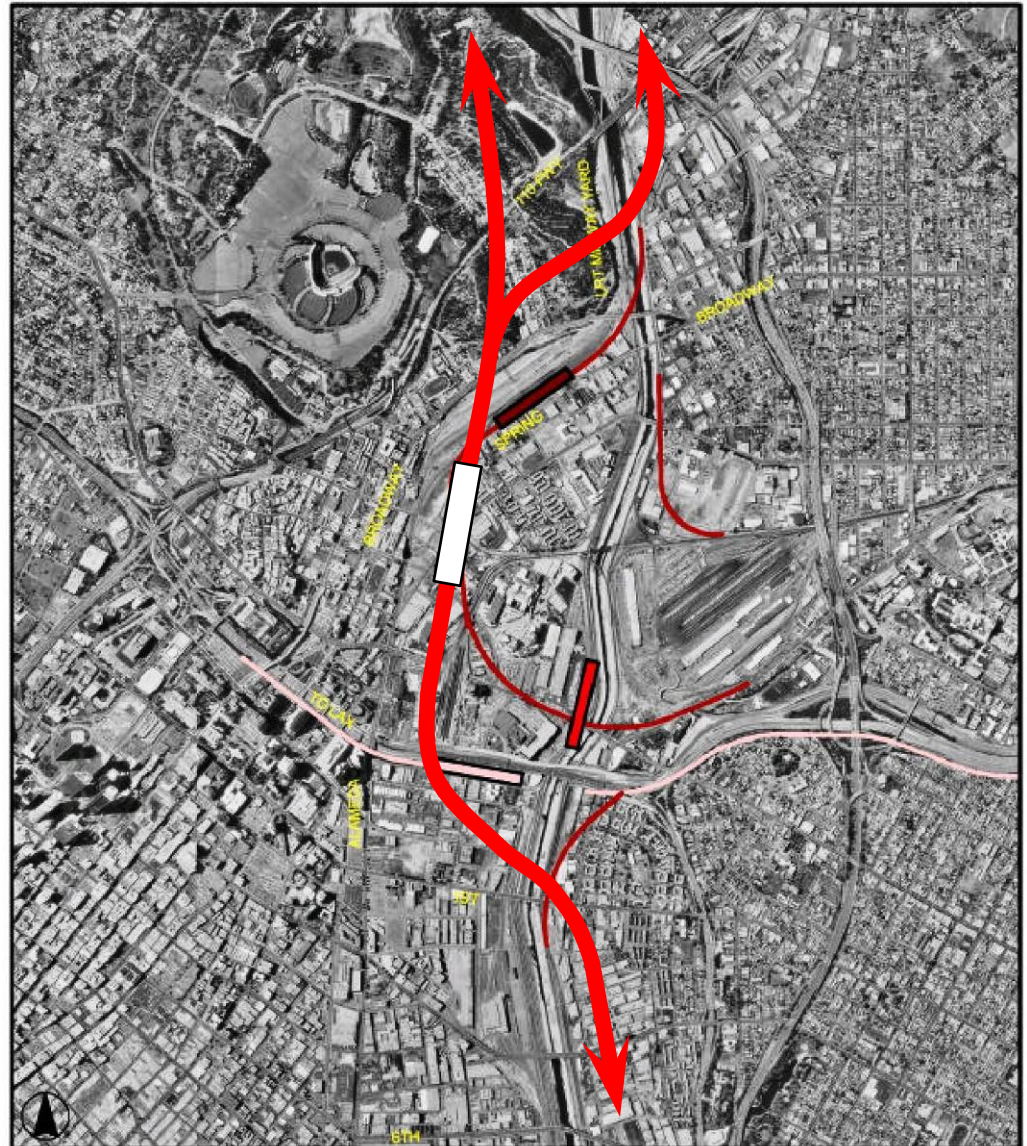
**January 7, 2010**





# Program EIR/EIS Designs

- Program EIR/EIS completed in 2005
- Large number of Union Station options examined:
  - Existing Union Station
  - LA River East
  - Union Station South (Through)
  - Cornfield Site
  - LA River West
  - Union Station South (Stub)
- Selected Option:
  - Existing Union Station



Source: USGS Orthophotoquads, 1994-1996

July 2001





# Project EIR/EIS

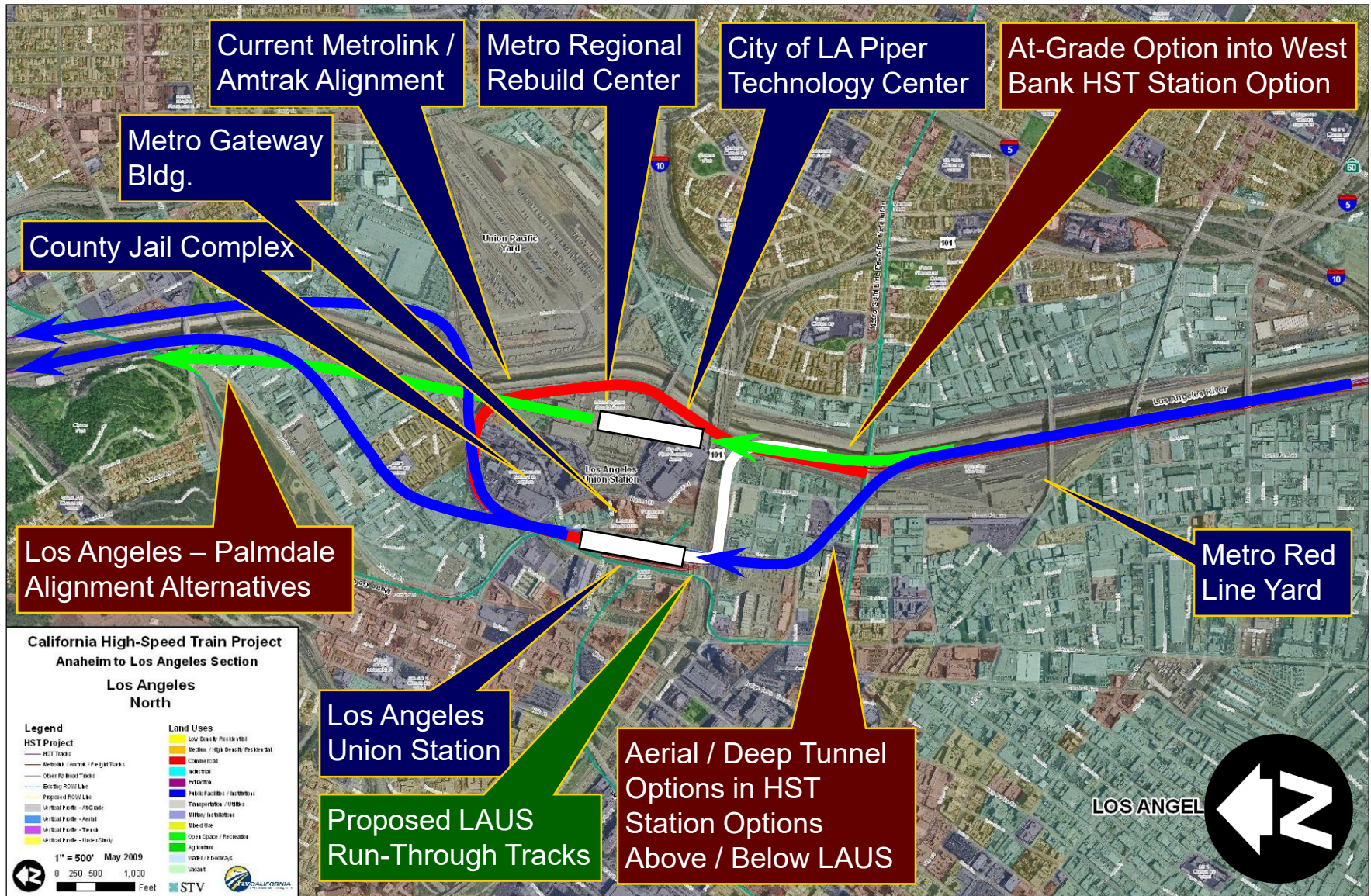
- Focused Project EIR/EIS started in 2007
- Began by once again looking at large number of station options, including:
  - Union Station (Aerial and Tunnel)
  - Vignes Street (Aerial)
  - West Bank of LA River (At-Grade / Trench)
- 3 options advanced to Alternatives Analysis
  - Union Station Aerial
  - Union Station Deep Tunnel
  - West Bank of LA River







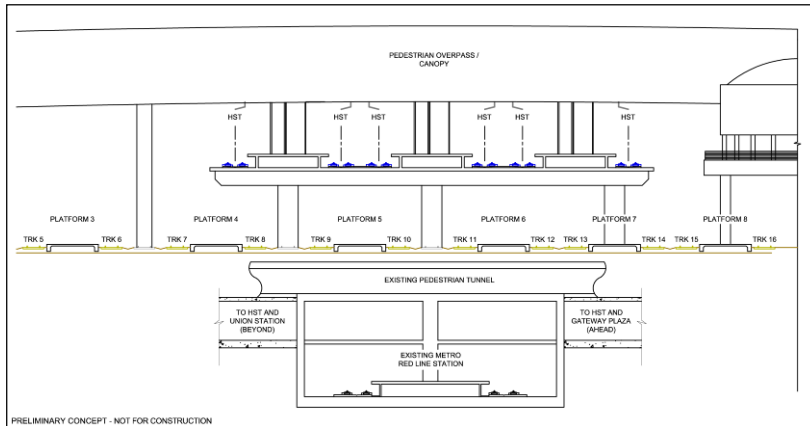
# Union Station – AA Options



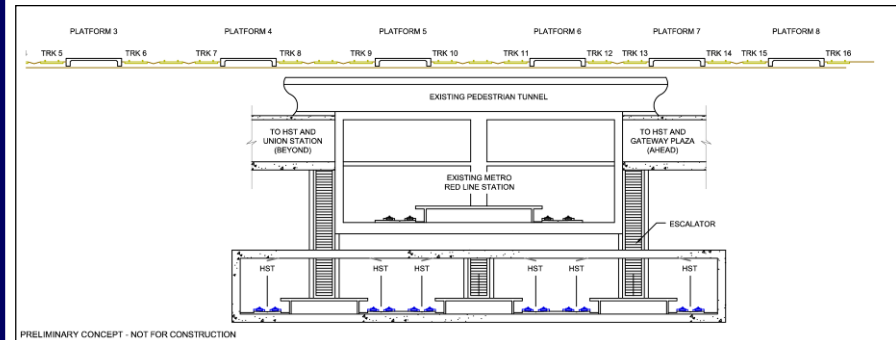


# LAUS Design Options

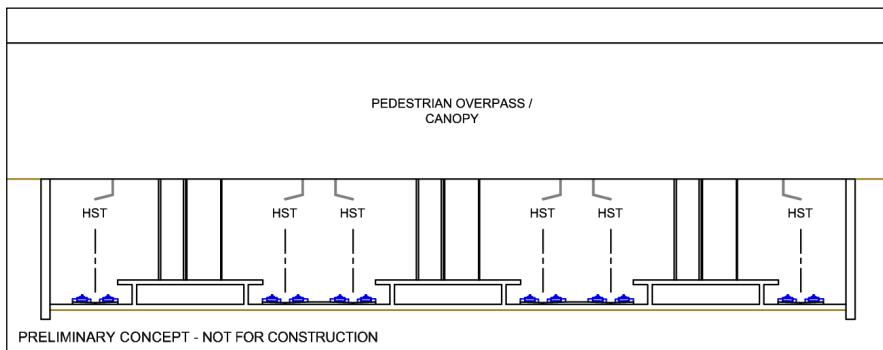
## Aerial HST Station



## Deep Tunnel HST Station



## West Bank HST Station







# LAUS Design Options

## Aerial HST Station

- Community Issues to north / south of LAUS
- Focus on connections to existing transit lines (Amtrak, Metrolink, Metro)
- Railroad operations issues

## Deep Tunnel HST Station

**Eliminated:  
Constructability**

## West Bank HST Station

**Eliminated:  
Property / Community Impacts**

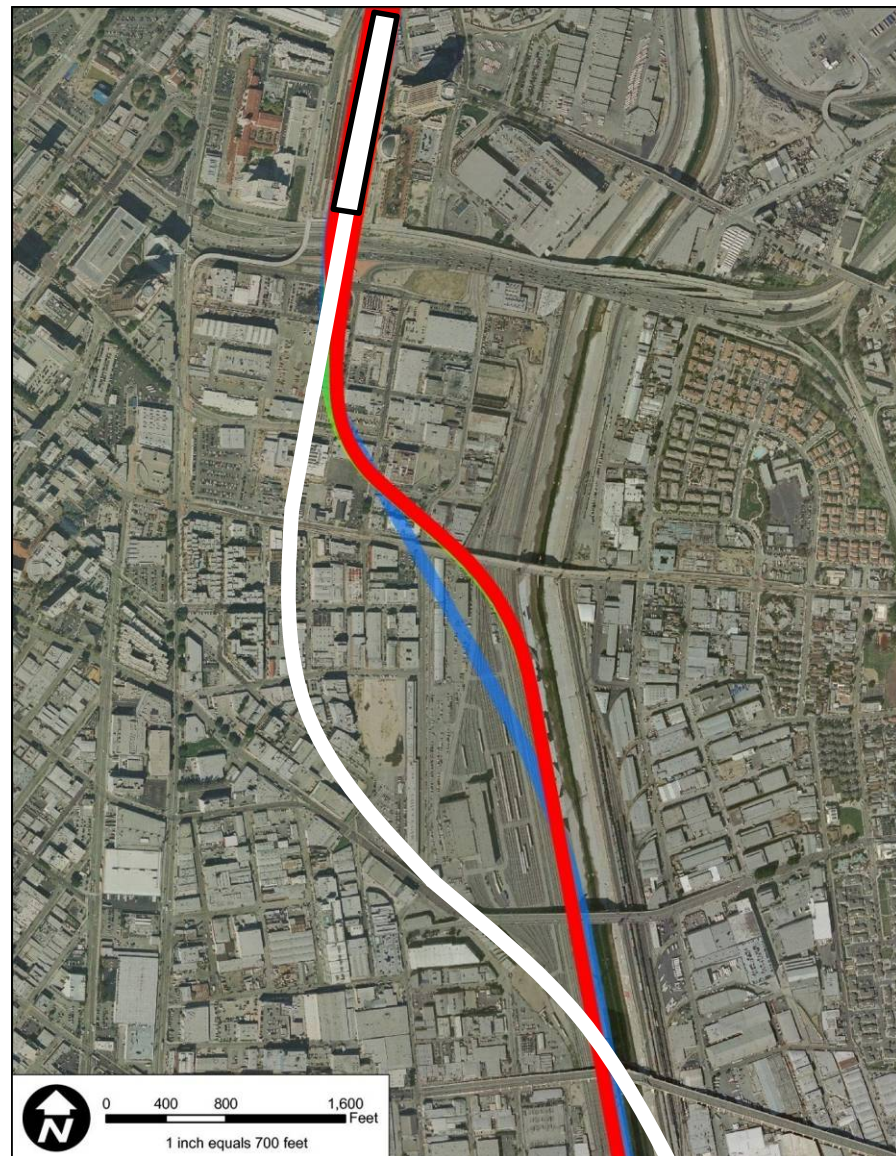
## HST Station Concept





# Union Station – South Approach

- South Approach to Union Station has evolved through Study:
  - Program EIR/EIS Alignment (2005)
  - 5% Design (2007)
  - 10% Design (2008)
  - 15% Design (2009)







# CHSTP – 15% Design at LAUS

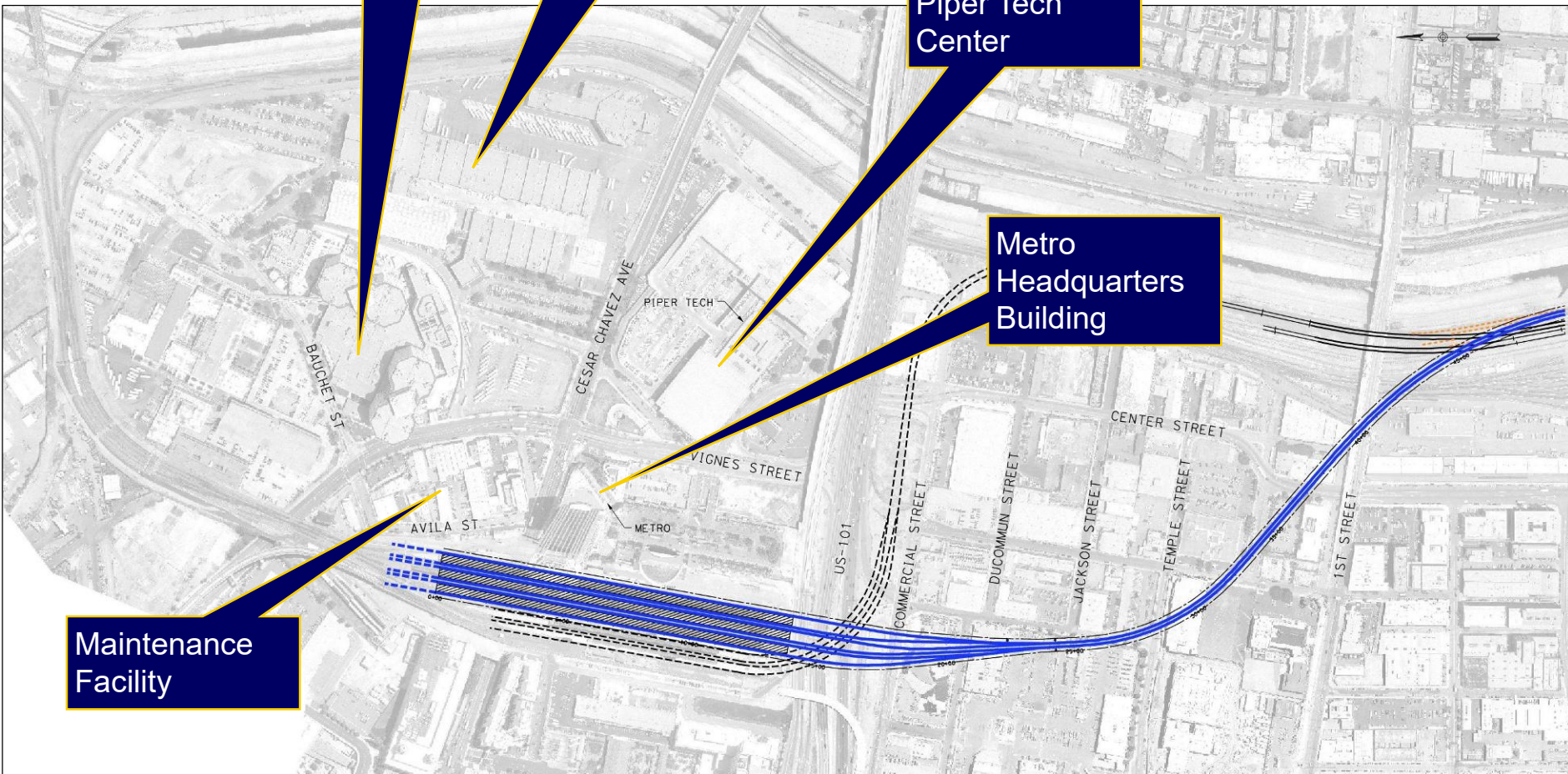
County Jail Complex

Metro Regional Rebuild Center

Piper Tech Center

Metro Headquarters Building

Maintenance Facility







# City of LA and Metro Requests

- On 10-29-09, LA Metro staff sent PB four possible LAUS platform and track alignments for further evaluation, including two “Vignes Street” alignment options and two re-aligned LAUS elevated track/platform options
- **In November 2009, the Authority agreed to include an alternate LAUS HST station alignment option in the DEIR/EIS**
- A 12-02-09 LA City Council resolution requested the Authority to study more than one potential site for the HST station and include a “Vignes Street” alignment





# City of LA / Metro Working Group

- Four concepts submitted by City of LA/Metro for review:
  - Vignes Street (South)
  - Vignes Street (North)
  - Union Station (Skewed)
  - Union Station (Tight Curve)
- City and Metro requested the Authority to determine the optimum alternative considering impacts to existing structures & County Jail rebuild plans







# Union Station (Skewed Options)

- **Positives:**
  - Shorter distance to LA River Corridor
- **Negatives:**
  - **Structural support of skewed platforms**
  - Conflicts with Metro Gold Line
  - Tighter curves to north of station
- **Conclusion: Skewed options are not viable**





# Vignes Street (South)

- **Positives:**
  - Shorter distance to LA River Corridor
  - Fewer construction impacts to existing Union Station tracks
- **Negatives:**
  - Impacts to Metro headquarters, Metro Maintenance Facility, LA County Jail
  - Tighter curves to north of station
  - Longer connections to Metro Rail, Metrolink, Amtrak
  - **Complex bridge design over US-101**







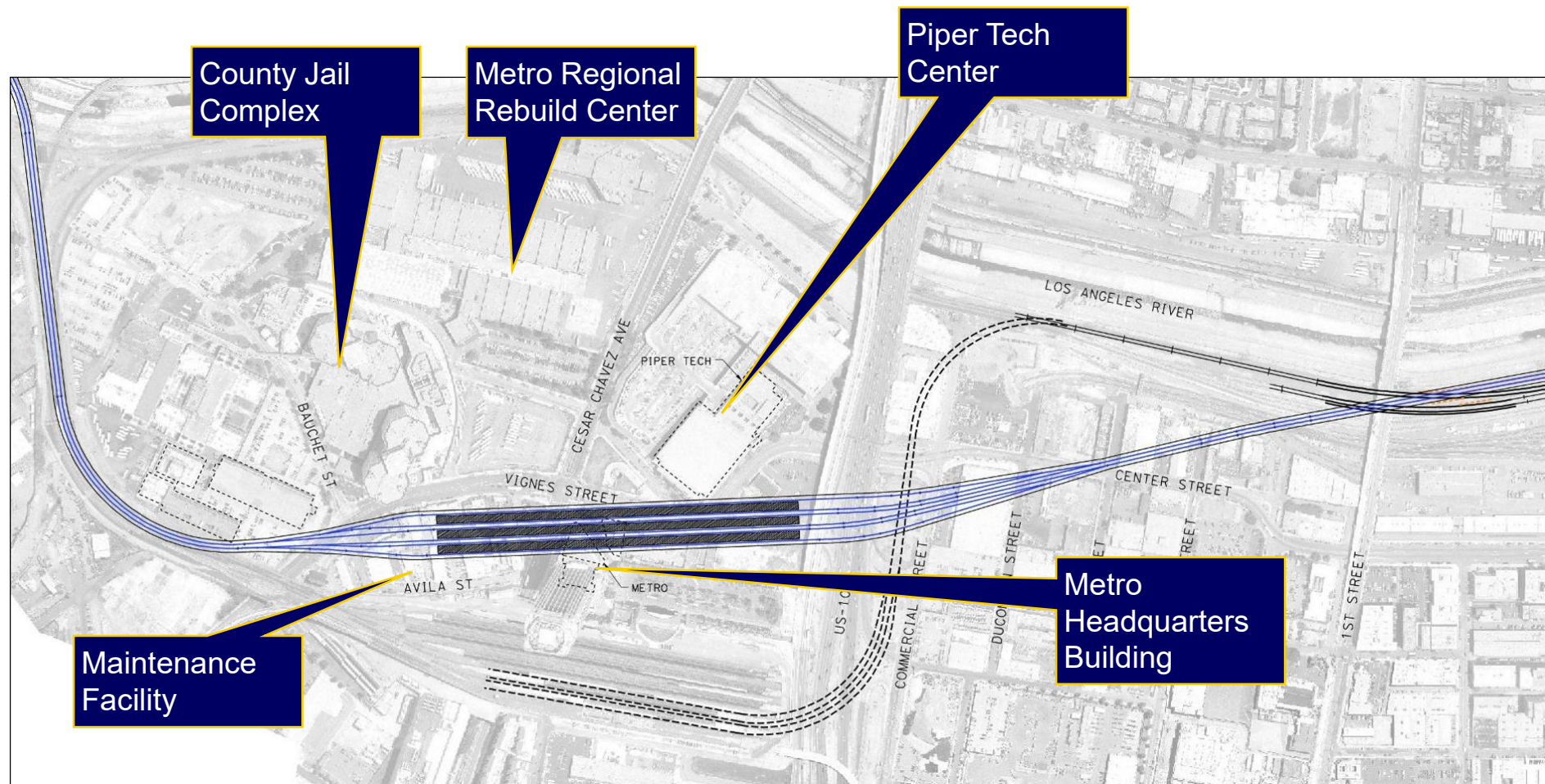
# Vignes Street (North)

- **Positives:**
  - Shorter distance to LA River Corridor
  - Fewer construction impacts to existing Union Station tracks
- **Negatives:**
  - Impacts to Metro headquarters, Maintenance Facility, LA County Jail
  - Tighter curves to north of station
  - Longer connections to Metro Rail, Metrolink, Amtrak
- LA-A Project Team refined both “Vignes” Concept Designs – Option 1 and Option 2





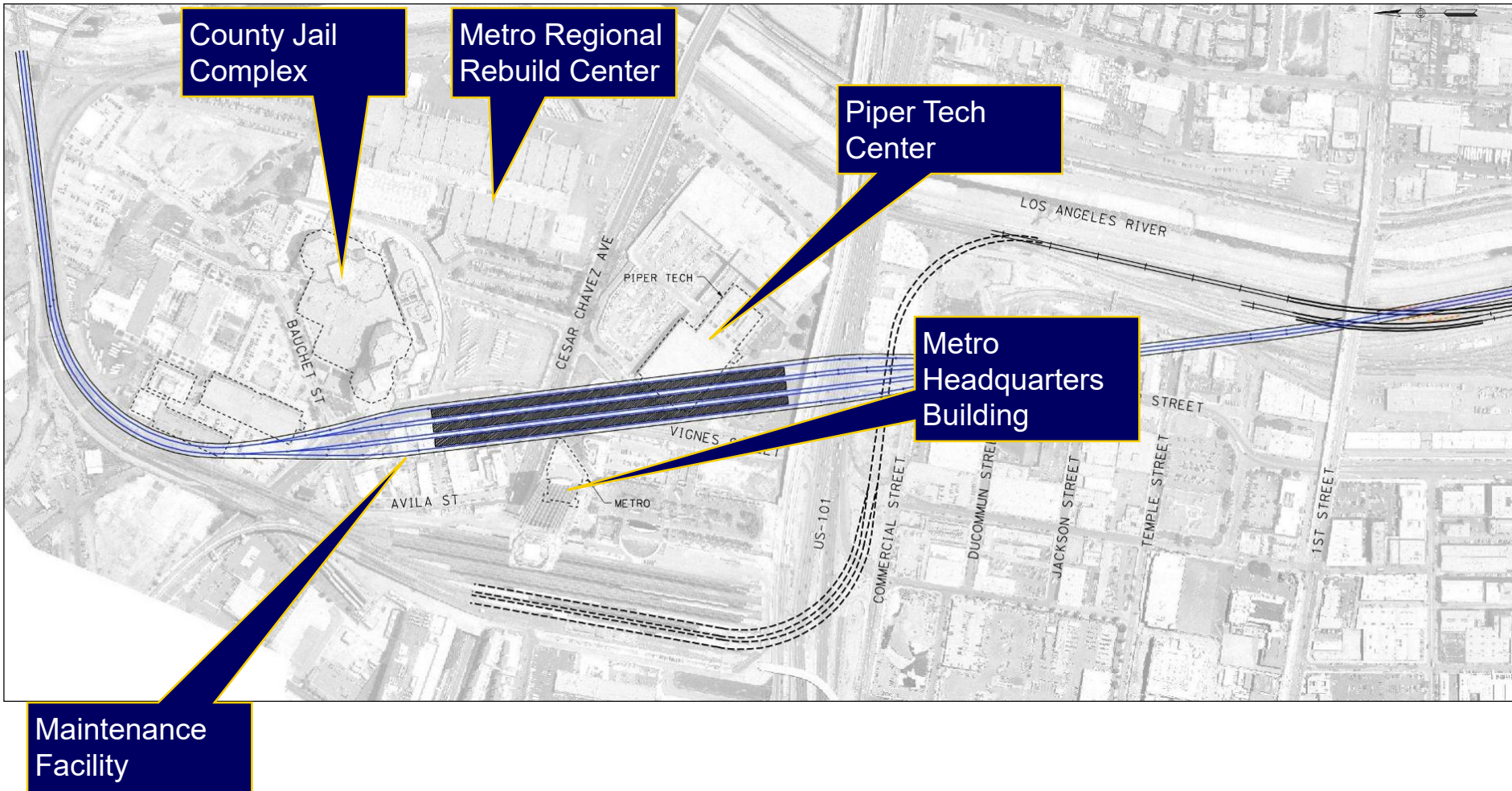
# Vignes Street Design Option #1







# Vignes Street Design Option #2





# Staff Recommendations

- Vignes Design Option #1 appears to have fewer impacts than Option #2 and is therefore recommended to be added and evaluated through the DEIR/EIS as a design alternative
- Further refine/evaluate 15% Design Aerial LAUS Option to minimize impacts to Arts District (Design Option #3)

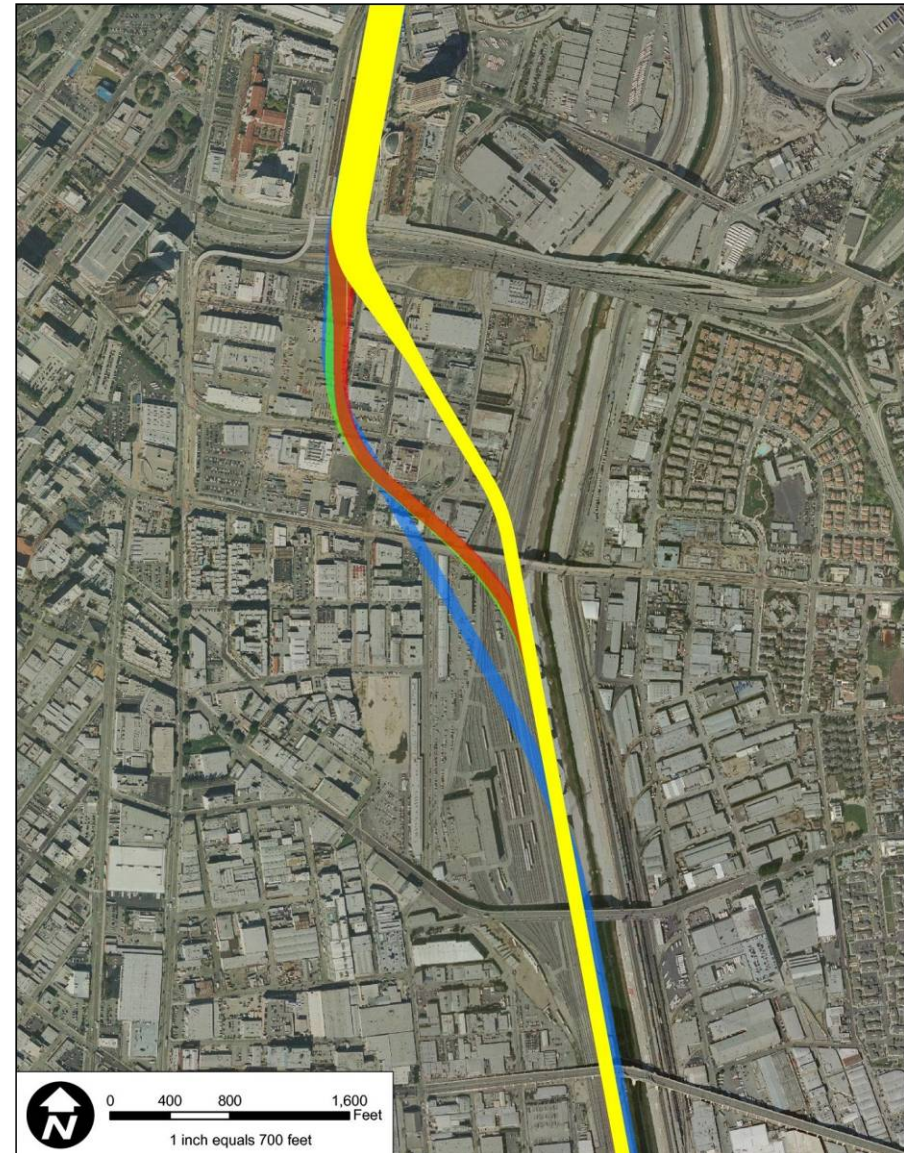






# Union Station (Tighter Curves)

- Positives:
  - Fewer impacts south of US-101
- Negatives:
  - Lower Operating Speeds
- Potential modification to 2009 design is similar to this concept but has acceptable curve radii and operating speeds but crosses above 1<sup>st</sup> Street Bridge







# Union Station Design Option #3

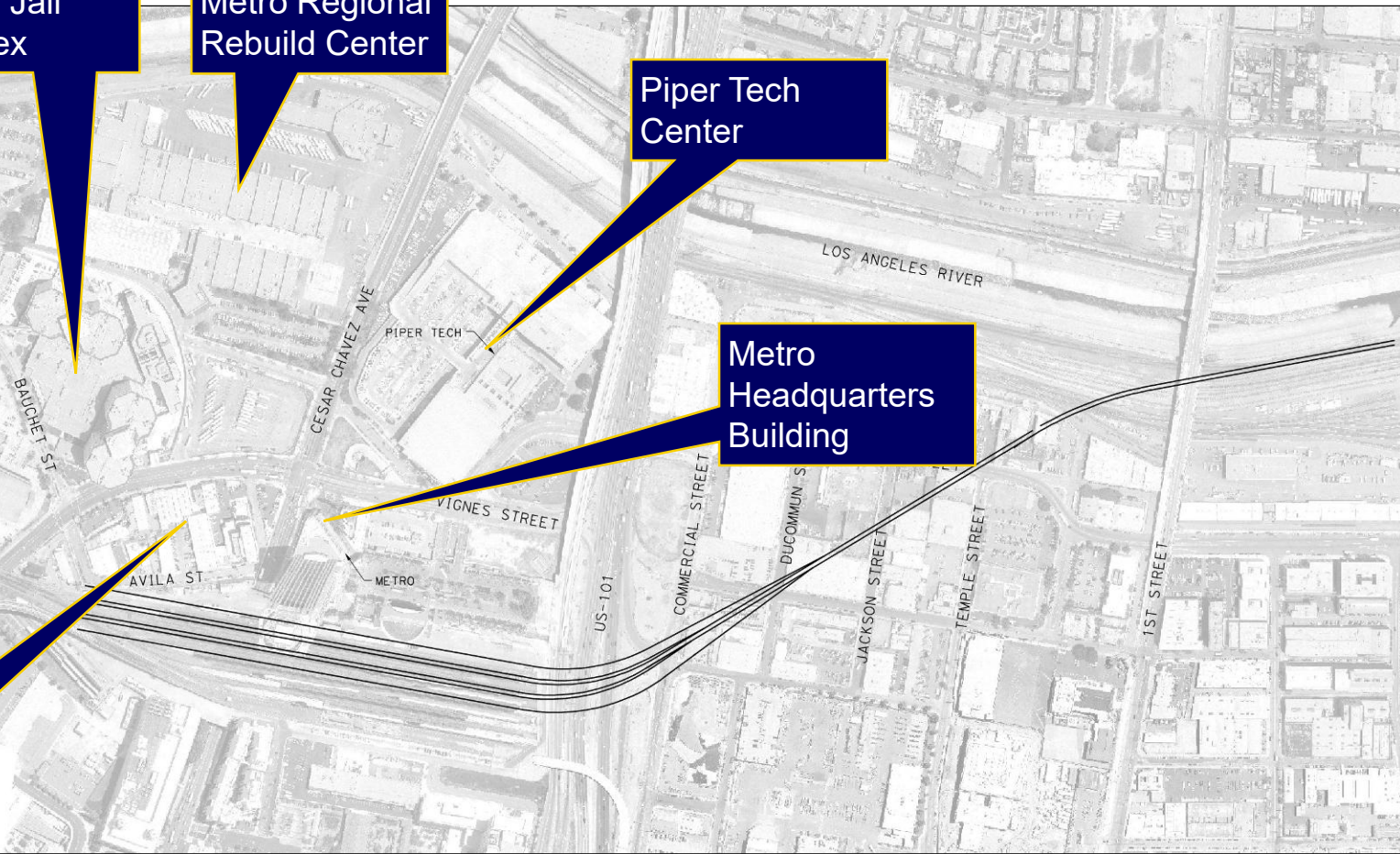
County Jail Complex

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Maintenance Facility







# Next Steps

- Advance/evaluate LAUS Design Options:
  - Further evaluate Vignes Street Design Option #1
  - Further evaluate Design Option #3 (Aerial LAUS Option with tighter curves to minimize impacts to Arts District)
- Revise/issue Administrative Draft EIR/EIS – Spring 2010 incorporating the two “best” LAUS HST Station alternatives

